

**REMARKS**

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-82 are presently active in this case. The present Amendment amends Claims 1, 10, 19, 23, 27, 32, 36, 40, 45, 49, 53, 57, 61, 65, 69 and 73 and adds new Claims 77-82.

In the outstanding Office Action, Claims 1, 10, 4 and 13 were rejected under 35 U.S.C. § 102(b) as being anticipated by Lobiondo (U.S. Patent No. 5,287,194). Claims 2 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lobiondo, in view of Sugishima et al. (U.S. Patent No. 4,797,706, herein referred as "Sugishima"). Claims 3, 12, 27, 29, 30, 31, 40, 42, 43 and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lobiondo, in view of Satake et al. (U.S. Patent No. 6,078,759, herein referred as "Satake"). Claims 5, 7, 9, 14, 16, 18, 19, 22, 23, 26, 32, 35, 36 and 39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lobiondo, in view of Salgado et al. (U.S. Patent No. 5,970,224, herein referred as "Salgado"). Claims 6, 8, 15, 17, 21, 25, 27, 34 and 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lobiondo, in view of Salgado in further view of Satake. Claims 20, 24, 33 and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lobiondo, in view of Salgado in further view of Sugishima. Claims 28 and 41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lobiondo, in view of Satake in further view of Sugishima. Claims 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73 and 75 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Satake in view of Salgado. Claims 46, 50, 54, 58, 62, 66, 70 and 74 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Satake, in view of Salgado in further view of Sugishima. Claims 48, 52, 56, 60, 64, 68, 72 and 76 were rejected under 35

U.S.C. § 103(a) as being unpatentable over Satake, in view of Salgado in further view of Lobiondo.

First, Applicants wish to thank the Examiner Reitz and Supervisor Moore for the courtesy of an interview granted to Applicants' representative on July 1, 2004, at which time the outstanding issues in this case were discussed. Arguments similar to the ones presented to the Examiner are included in this Amendment.

In order to clarify Applicants' invention, the independent Claims 1, 10, 19, 23, 27, 32, 36, 40, 45, 49, 53, 57, 61, 65, 69 and 73 are amended, adding features on a memory unit.<sup>1</sup> The amendment of these claims find support in the specification as originally filed. In order to vary the scope of protection, new Claims 77-82 are added. New Claims 77, 79 and 81 recite features regarding parallel data storage and data retrieval.<sup>2</sup> New Claims 78, 80 and 82 recite features regarding an image synthesis section.<sup>3</sup> The new claims also find support in the disclosure as originally filed. Therefore, new Claims 77-82 are not believed to raise a question of new matter.<sup>4</sup> In light of the amendments made to the independent Claims, the rejections are now moot.

Briefly recapitulating, Applicants' invention relates to an image formation system formed with at least two units of digital copying machines, wherein each of the digital copying machines has a memory unit able to store the document data locally in the digital copying machine and the memory unit further comprises a compression unit able to compress the document data and able to store the data to a storage unit.

As explained in Applicants' specification at page 1, lines 12-21 with corresponding Fig. 1, and at page 38, lines 12-20 with corresponding Fig. 4, Applicants' invention improves upon conventional digital copying machines because each digital copying machine comprises

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<sup>1</sup> See Applicants' specification at page 45, lines 5-10 and Fig 3. and Fig. 7.

<sup>2</sup> See Applicants' specification at page 40, line 24 to page 41, line 7 and at page 43, lines 20-25, and Fig. 7.

<sup>3</sup> See Applicants' specification at page 43, lines 4-8 and at page 45, lines 5-10.

<sup>4</sup> See MPEP 2163.06 stating that "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter."

a memory unit with a compression unit, so that efficiency of utilizing the memory can be improved.

Turning now to the applied prior art, the Lobiondo patent discloses a printshop management scheduling system which provides optimum scheduling of printer jobs on a network and that a print job can be allocated to a plurality of printers.<sup>5</sup> The Lobiondo patent, however, fails to teach or suggest Applicants' claimed memory unit able to store the document data locally in the digital copying machine comprising a compression unit able to compress the document data and able to store the data to a storage unit via a local bus and not via the system bus. In particular, Lobiondo fails to teach or suggest the claimed compression unit.

Furthermore, Salgado fails to disclose the above feature related to a memory unit comprising a compression unit and a storage unit, able to compress data and able to store data from the storage unit via a local bus and not via the system bus. Salgado's patent states that the IIT 18 (image input terminal) and IOT 20 (image output terminal) are operatively coupled with a compressor 62 and a decompressor 64.<sup>6</sup> Salgado also teaches a facsimile device 51 includes a chain of components, namely a section 52 for performing Xerox adaptive compression/decompression, a section 54 for scaling compressed image data, a section 56 for converting compressed image data and a modem 58.<sup>7</sup> Reading Salgado, a person of ordinary skill in the art would understand that the compressor is not connected to a memory unit via a local bus, also shown in Salgado on Fig. 3. Therefore, Salgado does not teach or suggest a compression unit able to compress data **and** able to store said data from said storage unit via a local bus and not via the system bus. As explained in Salgado, the EPC memory is "coupled with the VBus by way of a DRAM controller 33."<sup>8</sup> Accordingly, an image input

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<sup>5</sup> See Lobiondo in the Abstract.

<sup>6</sup> See Salgado at column 7, lines 60-63 and in Fig. 3.

<sup>7</sup> See Salgado at column 7, lines 29-38 and Fig. 5.

<sup>8</sup> See Salgado at column 6, lines 38-41 and Fig. 5.

terminal and image output terminal operatively coupled with a compressor 62 and a decompressor, as described in Salgado, is **not** a memory unit comprising a compression unit and a storage unit, able to store data from the storage unit via a local bus and not via the system bus, as would be required to meet Applicants' claimed features. In Salgado, the compressor 62 and the decompressor 64 can only access the EPC memory 24 over the V Bus 28. Therefore, even if the combination of the Lobiondo and Salgado patents is assumed to be proper, the combination fails to teach every element of the claimed invention. Accordingly, Applicants respectfully submit that the claims are patentably distinct over the Lobiondo and Salgado patents, independently or in combination.<sup>9</sup>

New Claims 77, 79 and 81 recite two storage units, two local buses and two compression units, allowing an external device to perform a parallel data storage and retrieval from the memory unit. Salgado shows a parallel data path between the IIT, Compression 62, V Bus Transfer modules 36C and the IOT, Decompressor 64, V Bus Transfer module 36D.<sup>10</sup> However, both V Bus transfer modules 36C and 36D access the same V Bus 28, so that a parallel data storage and retrieval is not possible. Therefore, new Claims 77, 79 and 81 are believed to be patentably distinct over the Salgado system.

New Claims 78, 80 and 82 recite an image synthesis section in the memory unit, wherein data and data already stored in the storage unit can be synthesized. Salgado states that the "image processing section 22 is coupled with an annotate/merge module 66."<sup>11</sup> However, Salgado does not teach or suggest that data already stored in a storage unit can be synthesized, and again Salgado does not teach or suggest the presence of a memory unit

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<sup>9</sup> See MPEP 2142 stating, as one of the three "basic criteria [that] must be met" in order to establish a *prima facie* case of obviousness, that "the prior art reference (or references when combined) must teach or suggest all the claim limitations," (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

<sup>10</sup> See Salgado in Fig. 5.

<sup>11</sup> See Salgado at column 8, lines 6-8 and Fig. 5.

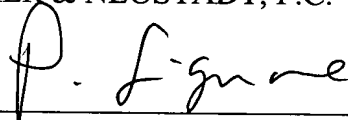
comprising a compression unit, a local bus and a storage unit. Therefore, new Claims 78, 80 and 82 are believed to be patentably distinct over the Salgado patent.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-82 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

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